

Deschutes & Ochoco National Forests Crooked River National Grassland

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United States
Department of
Agriculture

Forest
Service
February 2003

Environmental Assessment

Cultus Lake Forest Service Improvements

Bend/Ft. Rock Ranger District, Deschutes National Forest Deschutes County, Oregon

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- Bend/Fort Rock
- Crescent
- Sisters
- Ochoco SO
- Lookout Mtn.
- Paulina
- Crooked River NG

♦ Forest Health, Fire, Fuels, Vegetation Management

♦ Wildlife

♦ Recreation

♦ Land Acquisition

♦ Miscellaneous

PLANS, ANALYSES, ASSESSMENTS

Forest

Deschutes National Forest

1001 SW Emkay Drive
Bend, OR 97702
(541) 383-5300

Ochoco National Forest

3160 N.E. 3rd Street
Prineville, OR 97754
(541) 416-6500

**Crooked River National
Grassland**

813 S.W. Hwy. 97
Madras, OR 97741
(541) 475-9272



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**ENVIRONMENTAL ASSESSMENT
CULTUS LAKE
FOREST SERVICE IMPROVEMENTS**

INTRODUCTION

The Bend-Ft. Rock Ranger District of the Deschutes National Forest has analyzed the environmental effects of proposed

recreational improvements at a Forest Service developed recreation site at Cultus Lake (**Figure 1** and **Figure 2**) within an Environmental Assessment (EA). The project would include the reconstruction of the existing Forest Service boat ramp (**Figure 3**) and the improvement of the associated parking area. These Forest Service facilities are located approximately one-half (1/2) mile to the northeast of Cultus Lake Resort.

The proposed activities would occur adjacent to the southeast portion of Cultus Lake. The project area is located within the Northwest Forest Plan boundaries in T20S, R7E, Section 12. The elevation is approximately 4,700 feet. There are no inventoried (RARE II) roadless areas or known Threatened or Endangered species within the project area. Redband trout, listed as sensitive on the Region 6, Regional Forester's Sensitive Species List reside within Cultus Lake. The facilities proposed for reconstruction and improvement are located within Riparian and Late-Successional Reserves.

MANAGEMENT DIRECTION

The Deschutes National Forest Land and Resource Management Plan (Forest Plan), 1990, as amended by the Northwest Forest Plan (NWFP), 1994, established broad direction for the Forest. The analysis conducted for this project tiers to the Forest Plan and its supporting documentation.

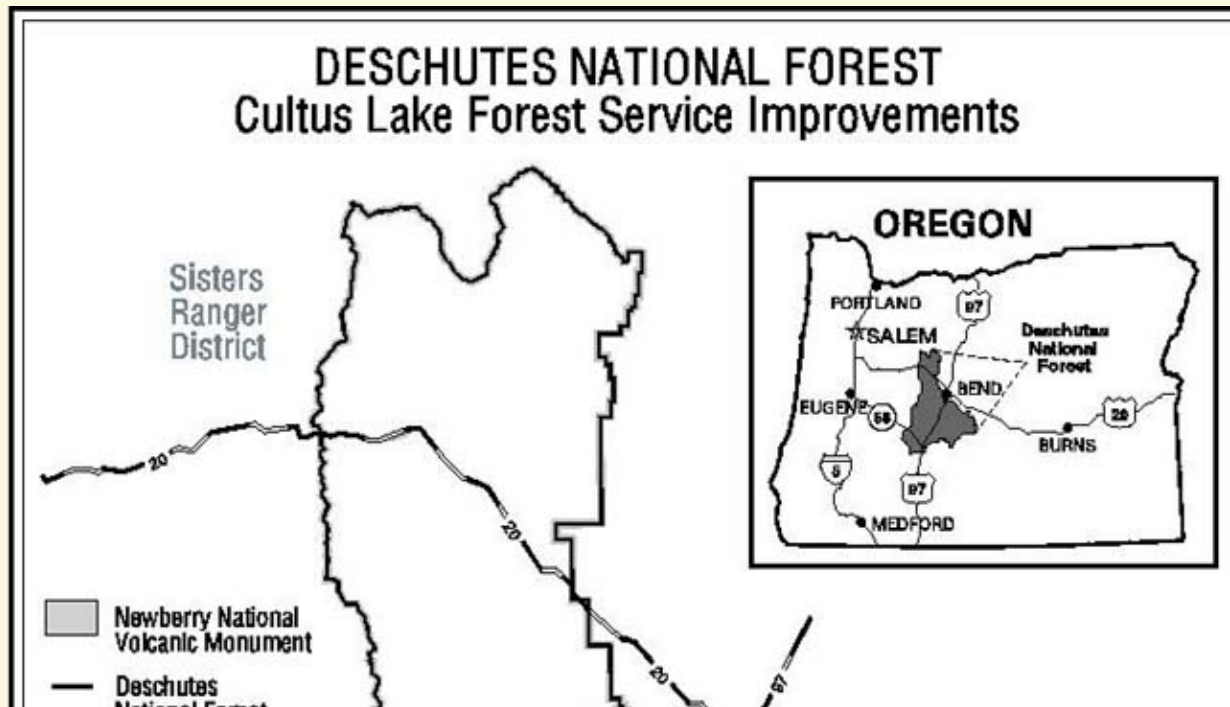
The following is a summary of the Management Allocations (MA) associated with the project area as allocated in the Deschutes National Forest Land and Resource Management Plan (Forest Plan):

- Intensive Recreation (MA11) - To provide a wide variety of quality outdoor recreation opportunities within a Forest environment where the localized settings may be modified to accommodate large numbers of visitors.

The following are summaries of designations of the Northwest Forest Plan associated with the project areas:

- Riparian Reserve - Designated under the Northwest Forest Plan for "restoring and maintaining the ecological health of watersheds and aquatic systems on public lands".
- Late-Successional Reserve - Protect and enhance conditions of late successional and old growth forest ecosystems, which serve as habitat for late successional and old growth related species including the northern spotted owl.

Figure 1 - Location of Project on Forest



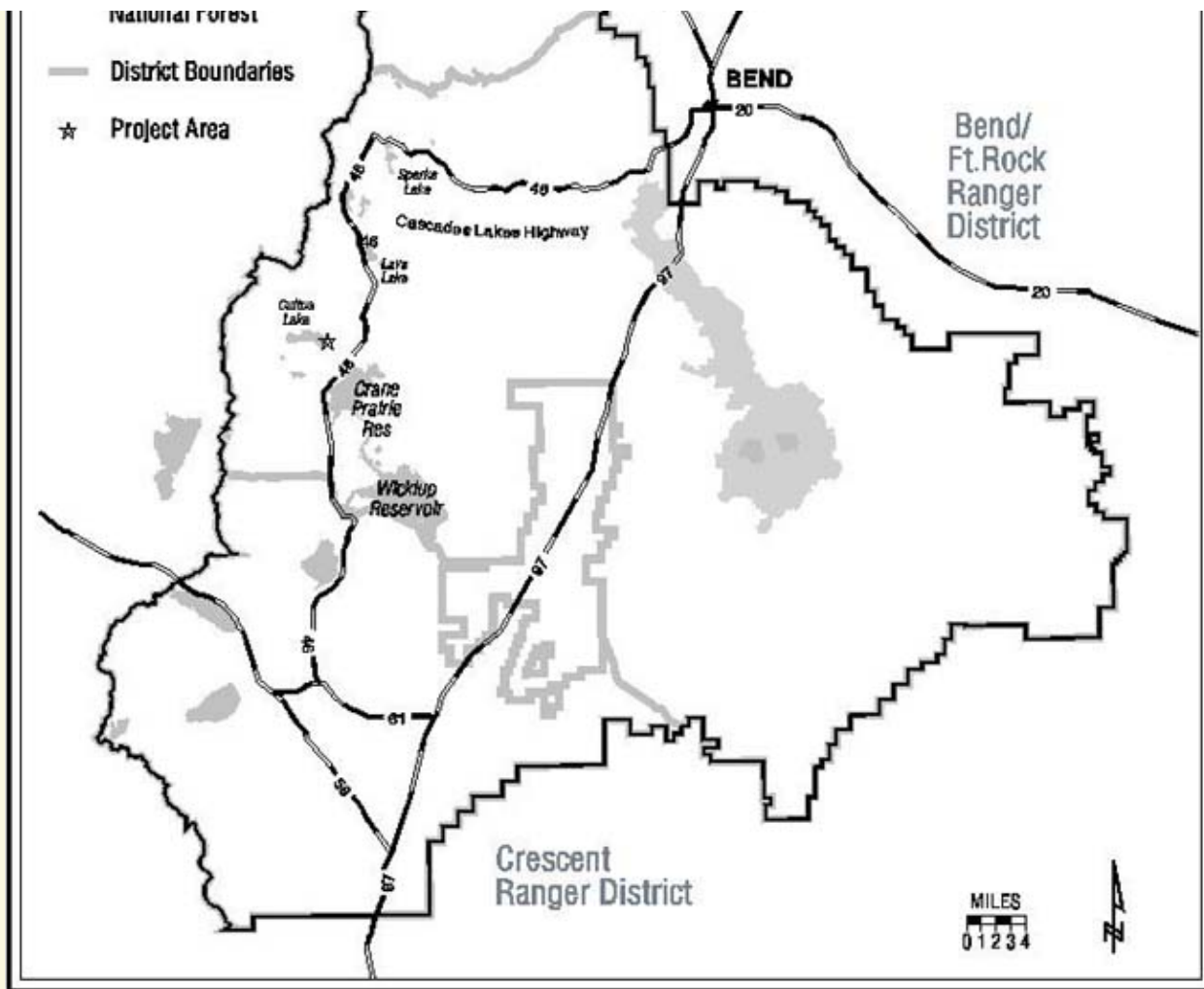
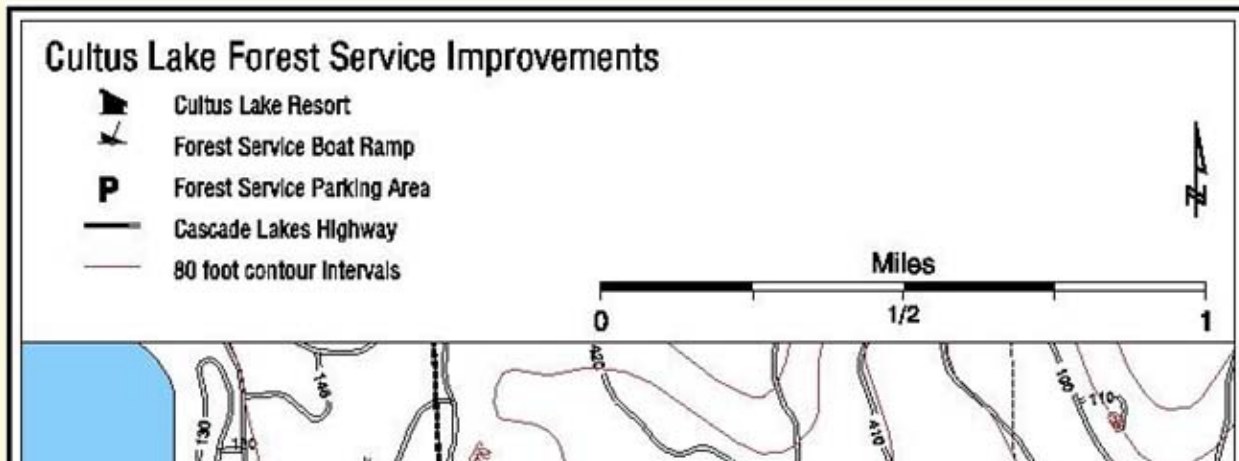


Figure 2 - Detailed Location Map



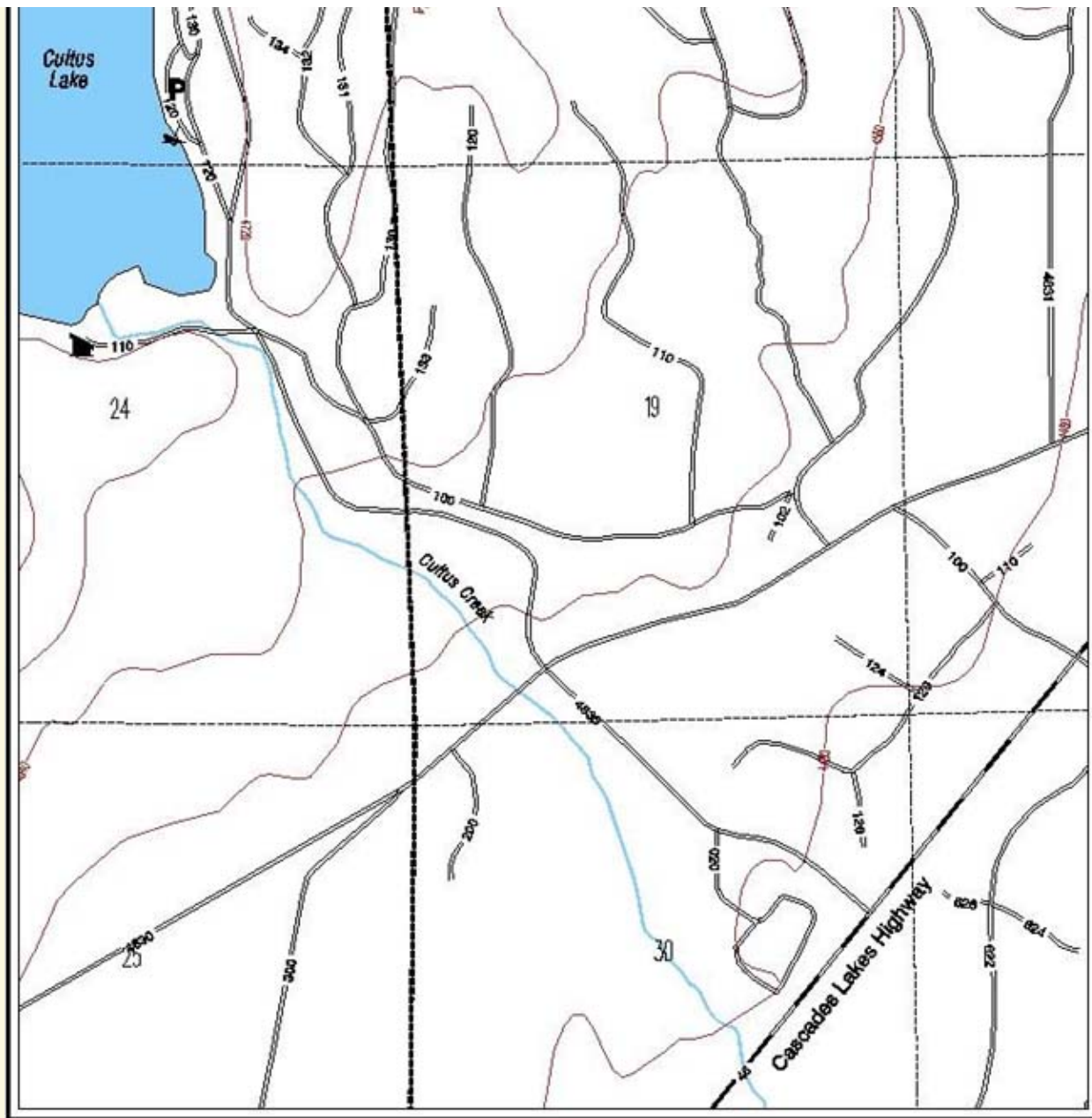
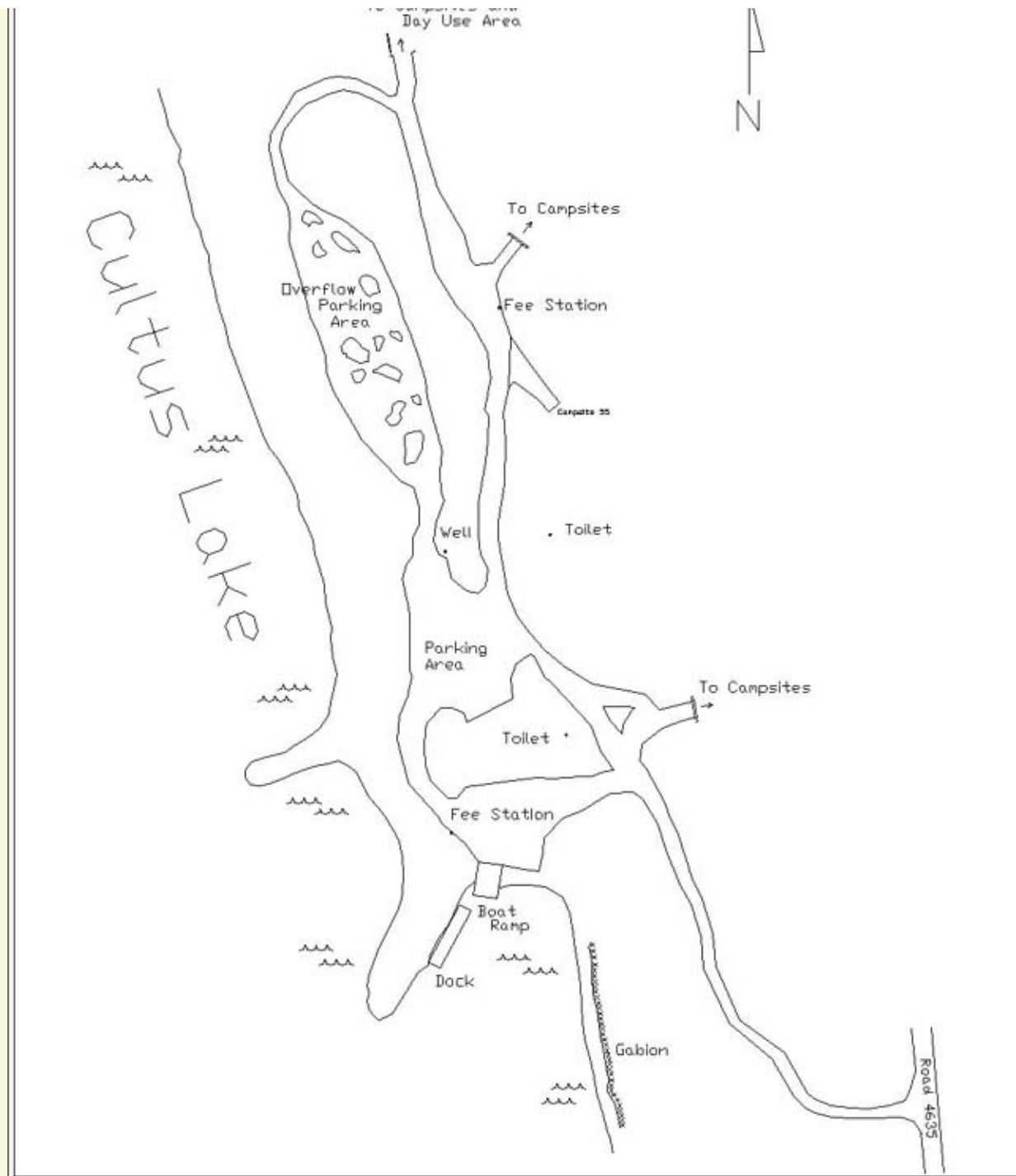


Figure 3- Existing Facilities Map





PURPOSE OF AND NEED FOR ACTION

Continued increases in recreational uses are predicted. Facilities and opportunities for new facility development within the Cascade Lakes area are limited. Concerns and opportunities that would enhance the recreational experience for visitors to Cultus Lake have been recognized. Visitors to the area that use the developed facilities at the lake, generally desire facilities that are safe and provide a range of services that accommodate modern motorized travel and recreation. By addressing the identified concerns and opportunities, the forest can move toward the desired condition of providing safe and efficient services that accommodate guests of the public lands, while retaining the character of the Cascade lakes of central Oregon.

Concerns have been identified regarding the current design and condition of the Forest Service boat ramp and the efficiency of the associated parking areas. The Forest Service boat ramp is poorly designed for modern boats and trailers, is in a deteriorating condition, and is causing damage to boat trailers and vehicles. The present configuration of the launch area allows only a portion of the boat ramp to be available for launching and retrieving boats. It is common to observe a long line of boaters waiting for an opportunity to launch or retrieve their boats during peak use periods. In addition, the accumulation of sediment, partially displaced from propeller wash, is an impediment for boats leaving the launch area for open water.

Parking is inadequate, poorly defined, and unaccommodating, particularly for vehicles with trailers. Congestion is a common problem within the parking areas and in areas where overflow parking occurs. During peak use, overflow parking occurs adjacent to roads accessing forest activity areas and in areas with previous disturbance. Vegetation within the south parking area, in conjunction with vehicle congestion, interferes with a safe line-of-sight for the driver. Trees within the north parking area interfere with efficient parking and present a hazard to the public.

There is a need to improve the boat ramp and associated parking areas to operate as a safe, modern and efficient facility while retaining the character of the central Oregon Cascade lakes.

PROPOSED ACTION

The proposed action would: 1) Remove, reconfigure, and replace the boat ramp and docking area; 2) Dredge to improve access to open water from the boat ramp; 3) Redesign the parking areas to incorporate increased and designated parking that allows for more efficient traffic flow into the launching facilities and a developed campground. More specific information is located [below](#).

DECISION TO BE MADE

The Deciding Officer is the Bend/Fort Rock District Ranger. The decision will be whether to authorize the actions proposed in this Environmental Assessment, and if so, under what conditions and with what mitigation measures.

DOCUMENTS TIERED TO

The following documents were used in this analysis and are incorporated by reference. These documents are available for public review at the Bend-Ft. Rock Ranger District Office:

- 1990, Deschutes National Forest Land and Resource Management Plan (LRMP) - This plan was developed to guide all natural resource management activities and establish standards/guidelines on the Deschutes National Forest.
- 1994, Northwest Forest Plan

DOCUMENTS INCORPORATED BY REFERENCE

- 1995, Cascade Lakes Watershed Analysis
- 1996, Cultus Mountain and Sheridan Mountain - Late-Successional Reserve Assessment

AVAILABILITY OF THE PLANNING RECORD

Specialist reports used in the preparation of this environmental assessment are on file at the Bend/Fort Rock Ranger District office.

PUBLIC INVOLVEMENT/SCOPING PROCESS USED

A letter requesting public involvement was mailed to approximately 100 individuals, businesses, and organizations that have an interest in the scoping process. Included in the mailing was The Bulletin, the local newspaper that reported on the proposed project area. Announcement of the proposed action was included in the Central Oregon Schedule of Projects (Deschutes National Forest publication) starting in the summer of 2000. This notification reaches approximately 3,200 individuals and groups. Initially, this proposed project included improvements to the Cultus Lake Resort. The environmental assessment that is being prepared for the resort improvements will be a separate decision regarding additional resort parking and a public shower/laundry/employee housing facility.

COMMENTS RECEIVED

Comments that are received are assessed for their relevance to resources being addressed within the project area. The public scoping process for the Cultus Lake Resort Improvements Environmental Assessment identified no key issues related to the proposed action in the project area. Five (5) responses to scoping were received, each in support of the project.

ISSUES USED IN ALTERNATIVE DESIGN

Internal Forest Service comments and analysis were used in the development of alternatives. The following issues were the basis for designing Alternative 3, an alternative to the proposed action. Each issue statement is followed by a more detailed explanation. The issues have units of measure developed for the reader to easily distinguish between each alternative and how it responds to the issues. A comparison table of the alternatives (Table 1) is presented [below](#).

Issue #1: The existing boat ramp does not and the Proposed Action would not provide adequate boat ramp area for efficient launch and retrieval of boats.

Discussion: The Oregon State Marine Board and the Forest Service have expressed concerns that Alternative 2 (Proposed Action) does not do enough to alleviate boat launch and retrieval congestion during periods of peak use. The present boat ramp has and the proposed boat ramp would have dimensions of approximately 24 feet wide and 30 feet long. A floating dock is presently accessible by boat from one (1) side only. The dock denies access to approximately eight (8) feet of ramp area due to its location directly over the east side of the boat ramp. The proposed dock relocation would allow access from both sides and allow full use of the proposed or existing ramp for launching and retrieval of boats. On the west side of the dock, the launch area would remain unimproved with launching primarily available for shallow hulled watercraft such as canoes, rafts, and small sailboats. The total area that is used for boat launching is approximately 75 lineal feet that includes approximately 50 lineal feet of unimproved launch area. There is a need to increase the improved ramp area to allow more efficient and orderly launches and retrievals.

Units of Measure: 1) Number of launch/retrieval ramps; 2) Total square feet of launch/retrieval ramps.

Issue #2: The existing parking areas do not and the Proposed Action would not provide adequate parking for the public that uses the Forest service boat ramp facility.

Discussion: The Oregon State Marine Board and the Forest Service have expressed concerns that Alternative 2 (Proposed Action) does not do enough to maximize the available, previously disturbed areas for increased parking. The present parking areas adjacent to and associated with the Forest Service boat ramp do not provide adequate parking during periods of peak use. The two (2) parking areas that provide parking for vehicles with trailers, motor homes, and autos have not provided efficient and optimum parking areas. Often during peak times, overflow parking occurs along the side of the roadways that access nearby campgrounds and trailheads. Parking along these roads reduces the efficient passage of vehicles that access those campgrounds and trailheads and increases safety concerns.

There is a need to maximize parking in presently disturbed parking areas and improve access to the campgrounds and trailheads.

Unit of Measure: Number of parking spaces.

ALTERNATIVE DISCUSSION

This section provides discussion of a no action alternative and two (2) action alternatives. It also includes a brief discussion of alternatives that were considered and responds to why they were eliminated from further analysis.

Alternatives Considered But Eliminated From Detailed Analysis

An alternative was considered that would relocate and enlarge the associated boat ramp parking. To effectively relocate and provide adequate parking, extensive removal of large trees within a Late Successional Reserve would be required that would result in a net loss of late and old structure. This alternative was eliminated from detailed analysis because it would not be consistent with maintaining late and old structure stands within Late Successional Reserves.

An alternative was considered that would expand the north parking area to the north and east. This alternative was eliminated from detailed analysis because it would have required substantial removal of vegetation within the present buffer between the adjacent campground and the north end of the parking area.

An alternative was considered for complete removal of the boat ramp and dock without replacement. This alternative was eliminated from detailed analysis because it would not meet the stated purpose and need of this Environmental Assessment.

Alternatives Considered In Detail

This section presents a detailed description of the alternatives responding to the "Purpose and Need" that are considered to be reasonable and viable by the Decision Maker (Bend-Fort Rock District Ranger). Alternatives, other than the no action alternative, are designed to move towards the desired condition and be consistent with the standards and guidelines of the Forest Plan. **All measurements are approximate.**

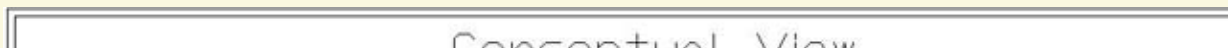
Alternative 1 (No Action)

Forest Service boat ramp improvements that would improve the efficiency of boat launch/retrieval, reduce congestion, and reduce damage to Forest users boats and trailers would not be implemented. The present boat ramp would continue to deteriorate, cause damage to boats, trailers, and vehicles, and continue to be a safety concern. Long lines of boaters waiting to launch/retrieve boats would continue during peak periods of use. Associated parking improvements that would improve parking efficiency would not be implemented. Utilizing parking potential to reduce congestion and haphazard parking in parking areas would not occur. Safety concerns with line-of-sight, hazard trees, and parking along access roads would continue.

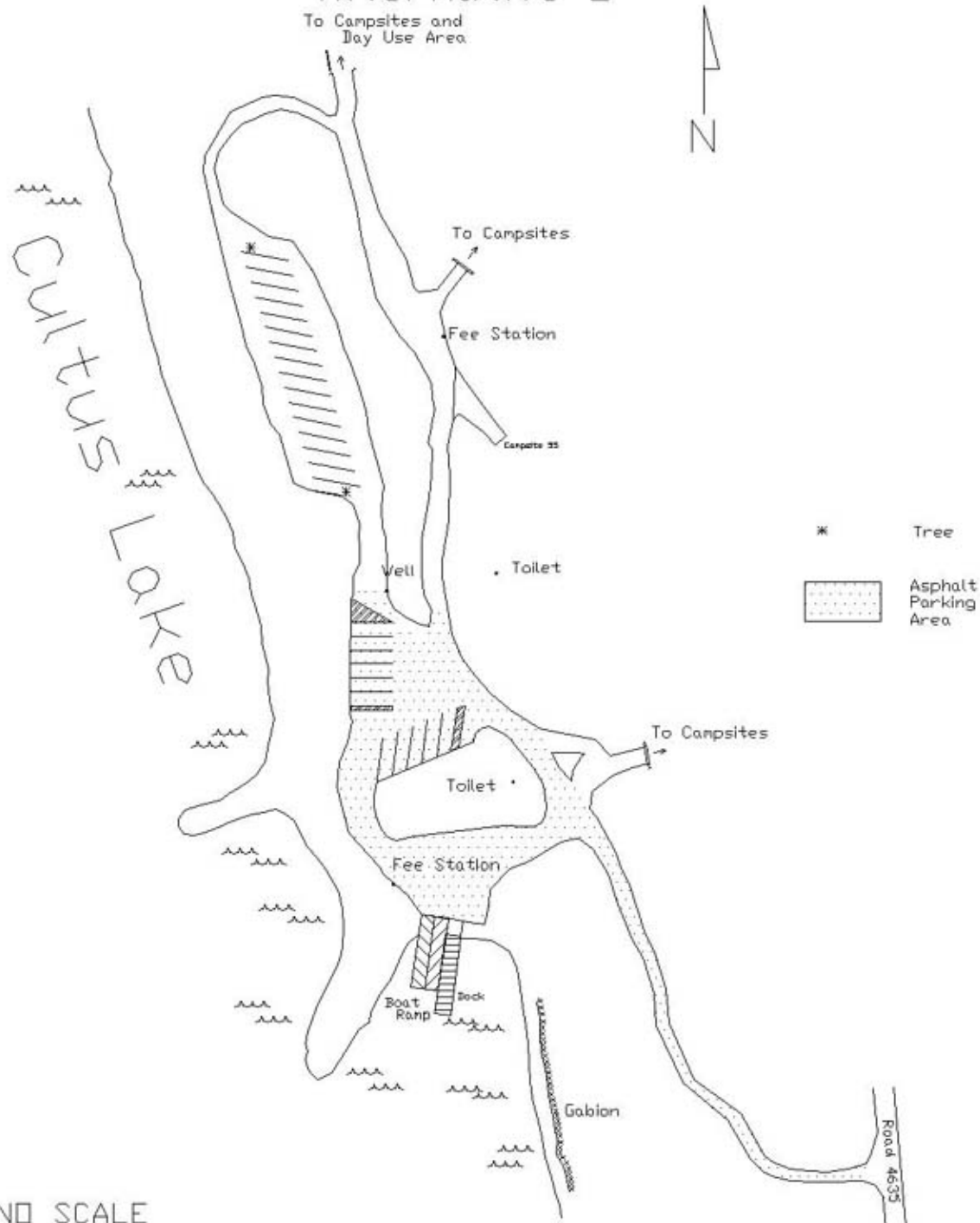
Alternative 2 (Proposed Action)

- Remove, reconfigure, and replace the boat ramp and docking area (Figure 4, below). The dimensions of the new concrete ramp would be approximately the same size as the existing ramp (approximately 24' x 30'). New base material, utilizing current technology, and an improved ramp design would allow the ramp to better withstand the effects of propeller wash, water, and ice and provide a more efficient platform for vehicles and trailers. Relocating and securing the existing boarding floats (dock) with pilings to the east side of the concrete ramp would allow boat access from both sides.
- To improve access to open water from the boat ramp, dredging would occur to an approximate depth of four (4) feet, at low water conditions, to allow safe clearance for boats.
- Redesign the parking area, without expansion, to incorporate more efficient traffic flow into the launching facilities and a developed campground. The south portion of the parking area would be paved. The north portion of the parking area would be graveled. Tree removal, approximately 10 trees from 10 to 24 inches in diameter at breast height (DBH), from the north parking area would be necessary for improving parking efficiency and the associated prevention of hazard tree development. Redesigning the parking areas with defined parking would accommodate a combination of approximately 35 vehicles and vehicles with trailers. Barriers and signing would discourage parking in inappropriate areas.

Figure 4 - Conceptual View of Alternative 2



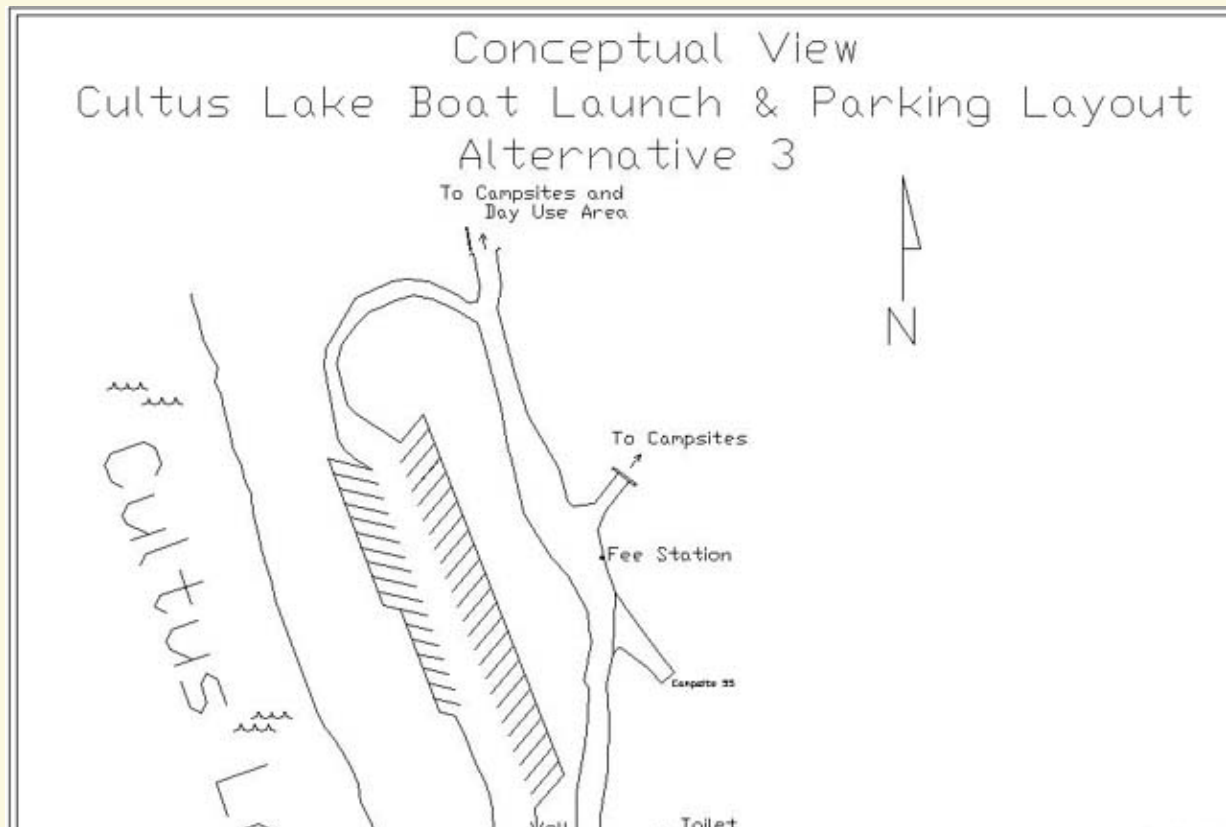
Conceptual view Cultus Lake Boat Launch & Parking Layout Alternative 2

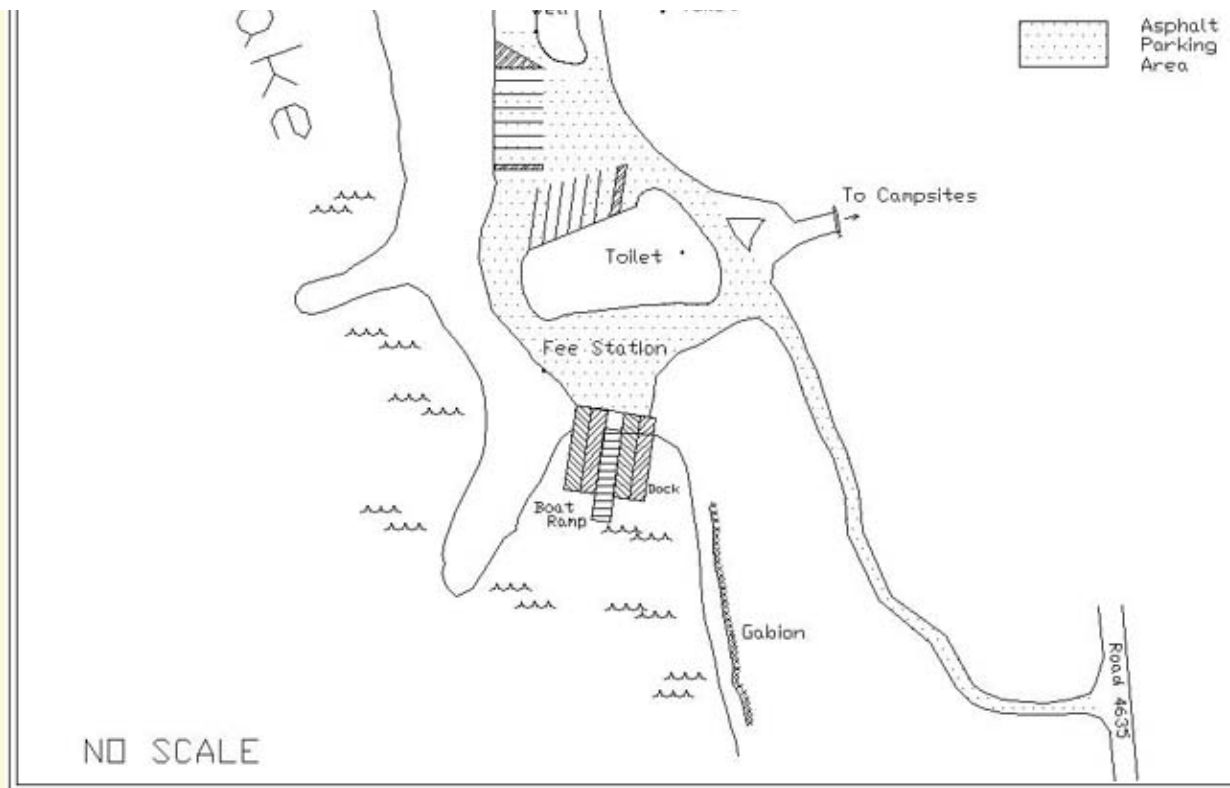


Alternative 3

- Remove, reconfigure, and replace the boat ramp and docking area (Figure 5, below). Two new concrete ramps (approximately 15' x 30' each) would replace the existing ramp (approximately 24' x 30'). New base material, utilizing current technology, and an improved ramp design would allow the ramps to better withstand wave wash, climate and provide more efficient platforms for vehicles and trailers. Relocating and securing the existing boarding floats (dock) with pilings between the concrete ramps would allow boat access from both sides.
- Dredging to an approximate depth of four (4) feet, at low water conditions, would allow safe clearance for boats and improve access to open water from the boat ramp, and is common with Alternative 2 (Proposed Action).
- Redesign the south portion of the parking area, immediately adjacent to the boat ramp, to incorporate more efficient traffic flow and utilize parking potential. The south portion of the parking area would be paved and have designated parking for approximately 14 vehicles with trailers. This parking area would be intended for use by vehicles with trailers only. Removal of approximately 5 trees between 10 and 15 inches DBH from the south parking area would optimize parking efficiency and improve driver safety.
- The north portion of the parking area would be graveled with designated parking for approximately 36 vehicles with trailers and 7 passenger vehicles. Removal of approximately 20 trees from 10 to 25 inches DBH would be necessary to optimize parking efficiency and prevent hazard tree development. Trees would be planted between the parking area and lake.
- Pave the access road to the entrance of the boat ramp to accommodate two-way traffic. This would allow for more efficient and safe travel into the launching facilities and developed campground areas.

Figure 5 - Conceptual View of Alternative 3





Alternative Comparison

Table 1 compares the alternatives in relation to the activities proposed in Alternatives 1, 2, and 3. All measurements are approximate.

Table 1: Alternative Comparison			
Activity	Alternative 1 (No Action)	Alternative 2 (Proposed Action)	Alternative 3
Boat Ramp			
Number of Concrete Boat Ramps	1	1	2
Total Square Feet of Boat Ramps	720	720	900
Dock			
Access (Sides)	1	2	2
Pilings	No	Yes	Yes
Dredging	No	Yes	Yes
Parking			
Designed Parking - South			
Vehicles with Trailer Spaces	0	12	14

Trees to be Removed (>/= 10" DBH)	0	0	5
Designed Parking - North			
Vehicles with Trailer Spaces	0	15	36
Single Vehicle Spaces	0	0	7
Trees to be Removed (>/= 10" DBH)	0	10	20
Paving			
Road Distance (miles)	0	0	0.4
South Parking	No	Yes	Yes
North Parking	No	No	Yes
Acres Affected			
South Parking and Boat Ramp Area	0	0.8	0.8
North Parking	0	0.6	0.6

MITIGATION MEASURES (MM) AND MANAGEMENT RECOMMENDATIONS (MR) COMMON TO ALTERNATIVE 2 (PROPOSED ACTION) AND ALTERNATIVE 3

Alternatives are designed to be consistent with the desired condition specified in the Deschutes National Forest Plan Land and Resource Management Plan (Forest Plan, LRMP) and the standards and guidelines and the Northwest Forest Plan. The following measures would be applied to reduce potential adverse impacts of Alternatives 2 and 3. If implementation or layout problems or opportunities are encountered, the appropriate specialist will be consulted.

Fisheries

The following BMP mitigation measures applicable to the proposed project are found in General Water Quality Best Management Practices, Pacific Northwest Region, 1988.

1. BMP T-21. Servicing and Refueling of Equipment. In summary, service equipment would be used in re-construction of parking lot and boat ramp in areas away from water **(MM)**.
2. BMP W-4 Oil and Hazardous Substance Spill Contingency Plan. In summary, there would be a contingency plan for emergency spills of fuel or hazardous materials into water bodies **(MM)**.
3. Utilize sediment cloth in Cultus Lake around boat ramp area during ramp re-construction and dredging to isolate suspended sediments **(MM)**.
4. Complete boat ramp construction and dredging in early fall to reduce potential impacts to fall spawning lake trout **(MM)**.
5. Utilize some of the trees removed during the parking lot reconstruction in wildlife or fisheries habitat restoration projects **(MM)**.

Botany

6. Clean all equipment and vehicles before entering National Forest System lands. Mud, dirt, and plant parts must be removed from all equipment and vehicles **(MM)**.
7. Use gravel from a known weed-free site **(MM)**.
8. Monitor the project work area in the period after work is completed, map and pull any new noxious weed sites as necessary **(MM)**.

Scenic Resource

9. A Landscape Architect would work closely with Cultus Lake IDT on conceptual site design and site rehabilitation prescriptions to help minimize any potential effect on scenery, landscape character, and ROS classification **(MM)**.

10. Plant native shrub and grass species to soften any effect following construction. Reduce soil and color contrast by completely covering up impacted area with native materials such as pine needle casting, local topsoil of similar color, or bark mulch on impacted area following construction completion. Plant native species of trees to provide a visual buffer between Cultus Lake and the parking areas (MM).
11. Treatment of slash and tree stump (following timber removal) shall comply with the Deschutes National Forest LRMP standards and guidelines, including rehabilitation of impacted area (MM).
12. Following the reconstruction, remove all rejected materials off site so to maintain the original site condition as much as possible, as part of overall site rehabilitation effort (MM).

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section discloses the expected environmental consequences as a result of implementation of the alternatives: Alternative 1 (No Action) or Alternative 2 (Proposed Action) or Alternative 3. The two (2) action alternatives are designed to be consistent with the desired conditions specified in the Forest Plan (LRMP) standards and guidelines, along with direction found in the Northwest Forest Plan.

This section provides the scientific and analytic basis for comparison of the alternatives. It also describes the indirect, direct, cumulative, duration and intensity of effects of the alternatives. **All measurements are approximate.**

Recreation Resource

Affected Environment: Cultus Lake has a long history of various recreational use. Included are boating, camping, and day use. The lake is one of two accessed from Cascades Lake Highway that does not have a speed limit for boats and is open to water-skiing. This is also the only lake in the immediate area that has "developed boat in" camping. The general season for recreation use at Cultus Lake is Memorial Day through Labor Day, with the highest use occurring between July 4 and Labor Day. During the high use season, campgrounds and day use facilities may be near or above capacity. Summer days are generally warm and dry and nighttime may experience frost. The access road to the Forest Service facilities is usually snow-free from mid May to mid November. Heavy snows during the winter season make use impractical.

The Forest Service developed a small campground on the east end of the lake during the 1930's. Additional facilities at Cultus Lake were developed in the late 1950's and early 1960's and consist of Cultus Lake Boat Launch, Cultus Lake Day Use Area, Cultus Lake Campground, West Cultus and North Cove boat in campgrounds, and Cultus Lake Resort.

The Forest Service boat ramp and parking area were developed during the 1960's and are maintained and operated by the Forest Service in partnership with the Oregon State Marine Board (OSMB). Like many other boating sites in Oregon, the boat ramp and parking areas have reached the end of the effective, functional life span. The OSMB estimates that three out of every four boating facilities throughout the state do not meet the current standards for safety and serviceability. In the 1999-2005 OSMB Six Year Statewide Boating Facilities Plan, the Cultus Lake Boating Site was identified as one of three high priority sites in need of reconstruction in Deschutes County. The items identified for reconstruction/enhancement were to resurface the gravel access road, repair the gravel parking area, replace the hard surface ramp, add pilings for an improved dock, repair the boarding floats, place rip rap on the breakwater, and dredge the launching area.

The boat ramp is presently poorly designed for modern boats and trailers and is in a deteriorating condition. The beginning of the ramp has a sudden slope change and ramp breakage is occurring at the water end as a result of the loss of base material from propeller wash and natural processes. The loss of ramp at the water end is also associated with an abrupt drop off which makes boat launching and loading difficult, particularly in autumn when the water is generally at the lowest level. Both the change in ramp slope and ramp breakage with the sharp drop off has caused damage to boat trailers. In addition, the accumulation of sediment (displacement from propeller wash) is an impediment for boats leaving the launch area for open water.

Presently, only a portion of the approximate 24' x 30' boat ramp is available for launching and loading boats since the boarding floats (dock) interfere with approximately 8' of the width of the boat ramp. If the full 24' width of the boat ramp was available for launching, only one boat could conveniently launch at one time. It is common to observe a long line of boaters waiting for an opportunity to launch or load their boats at the single dock and narrow boat launching and retrieval lane of the ramp during busy weekends.

The associated parking areas, which presently allow for approximately 20 to 25 vehicles, are not accommodating, especially for those vehicles with trailers. Due to parking not being well defined, the parking areas are frequently congested with overflow vehicles parked along the access road and in other undesignated areas. Vegetation within the parking area, in conjunction with vehicle congestion, interferes with a safe line-of-sight for the driver.

Access to the facilities being proposed for reconstruction/enhancement is by a narrow, gravel road. The road is frequently

used for "overflow" parking during the summer season. "Overflow" parking narrows the access road and makes it difficult for approaching vehicles to easily and safely pass.

Alternative 1 (No Action): Under implementation of this alternative, there would be no reconstruction activities within the Forest Service developed recreation area at Cultus Lake except for activities such as parking lot and boat ramp maintenance. This alternative would perpetuate the congestion and haphazard activities associated with boat launch/retrieval and parking. The continued use of the present boat ramp facility would continue: 1) causing damage to boat trailers; 2) inefficient launching and retrieval of boats; 3) difficulty in launching and retrieving boats, particularly during late summer, low water periods; and 4) deterioration of the boat ramp. Dredging would not occur that would allow for more efficient access to and from the boat ramp. Current parking facilities would have a continuation of the inefficient use of the areas for parking and would continue to present safety and resource damage concerns.

Elements Common to Alternatives 2 (Proposed Action) and 3: The south portion of the parking area would be paved and would have improved traffic flow and safety into the launching facilities with the removal of vegetation. Removal of some of the vegetation from the center island would improve line-of-sight and reduce vehicle/vegetation interactions. The north portion of the parking area would be graveled. Redesigning the parking areas with defined parking would reduce the current problem of haphazard, unsafe parking conditions. Tree removal in the north portion of the parking area would allow for more efficient parking and would reduce likely hazards associated with trees and parking areas. Redesigning the parking areas with defined parking would reduce the current problem of haphazard, unsafe parking conditions.

Alternative 2 (Proposed Action): This alternative would improve the boat ramp configuration. New base material and an improved ramp design would allow the ramp to better withstand wave wash and weather and provide a more efficient platform for vehicles and trailers. Relocating and securing the existing boarding floats (dock) with pilings to the east side of the concrete ramp would allow boat access from both sides. Dredging would improve access to open water from the boat ramp, allowing safe clearance for boats, particularly during periods of low water.

The south portion of the parking area would have designated parking (approximately 12 spaces). The north portion of the parking area would have designated parking (approximately 15 spaces). Total designated parking would be approximately 27 spaces, reducing the current problem of haphazard, unsafe parking conditions. Overflow parking would likely continue. Overall traffic flow would be improved with both parking areas.

Alternative 3: This alternative would provide an efficient reconfiguration of the boat launch area. Two hard surfaced boat ramps on either side of the relocated boat dock would allow quicker launch times, subsequently reducing wait times during high use periods. Other effects are equal to Alternative 2.

The south portion of the parking area would have designated parking (approximately 14 spaces). The north parking area would have increased designated parking (approximately 43 spaces) with approximately 36 designated for vehicle/trailer parking. The north portion of the parking area would be paved if funding became available. Redesigning the parking areas with defined parking would substantially reduce "overflow" parking onto the access road. The access road would be double lane paved which would discourage parking along this travel way.

Fisheries Resource

Affected Environment: Cultus Lake is approximately 1,145 surface acres, and over 200 feet deep, and is very popular for a variety of water related recreation activities. There are 8.1 miles of shoreline and the surrounding Riparian Reserve totals 295 acres. Because of its purity and naturally low nutrient levels, the lake is susceptible to nutrient enrichment. Natural buffers to this enrichment and that limit primary productivity are: 1) large water volume and low shoal area; 2) short growing season; 3) cool temperatures; and 4) the flow of water into and out of Cultus Lake. The zone of riparian vegetation surrounding the lake and within the project area is very narrow, generally less than 10 feet in width. The vegetation quickly transitions into upland communities of mixed conifer away from the lake.

Fish populations include mountain whitefish and lake, eastern brook, redband, and rainbow trout. The lake is stocked annually with approximately 6,000 legal-sized rainbow trout. Genetic analysis was recently completed on redband trout in Winopee Creek, a tributary stream to Cultus Lake. This population has had very little cross breeding with hatchery fish. The hatchery fish genetic contribution in this population was only 4% (Phelps, et al 1996).

The redband trout (*Oncorhynchus mykiss gairdneri*), listed on the Regional Foresters Sensitive Species List, may occur within the project area. There are no known Federal threatened, endangered, proposed, or candidate fish species within the project area. The nearest known population of bull trout, a threatened species, is located over 100 miles downriver from the project area at Lake Billy Chinook. The bull trout has not been documented in the Deschutes River upriver from Bend since 1954 (ODFW).

Alternative 1 (No Action): With no parking area reconstruction, there would be no direct effects, such as a reduction in shade, to water quality or fisheries from reconstructing the parking area. There would be no temporary, localized increase in the turbidity of Cultus Lake during boat ramp re-construction.

As a result of inefficient use of the parking areas, vehicle parking would continue to encroach upon the surrounding forest. Compacted soils and a loss of vegetative cover could result in unsubstantial overland flow of sediments and a loss of shade and future large wood recruitment to the lake. The biological evaluation for redband trout determined there would be No Impact as a result of selecting this alternative

Alternative 2 (Proposed Action): Paving the boat ramp parking area would reduce overland flow of sediments into Cultus Lake during rainstorms and snowmelt periods. A temporary, localized increase in the turbidity would occur during boat ramp construction and dredging. The area impacted would be less than 1/4 acre (.02 percent) of the lake surface. Fish, including redband trout, would avoid the area during construction and dredging activities. Activities may coincide with the fall spawning period for lake trout. Spawning habitat for lake trout is limited in the boat ramp area due to the lack of cobbles and small boulders. The use of Best Management Practices and Management Recommendations would protect lake trout and other fish species.

Providing designated parking would reduce encroachment of vehicles into the surrounding forest. The risk of overland flow of sediments into the lake would be reduced with a reduction of soil and vegetative disturbance from vehicles outside of the parking area. The removal of approximately 10 to 15 trees within the Riparian Reserve would not substantially reduce shade or have an anticipated detectable change in water temperature. Recreational use could increase above current levels with boat ramp and parking improvements. An increase in motorized watercraft pollutants and shoreline riparian zone foot traffic could provide an unsubstantial increase in adverse effects to the water and fisheries resources.

Past activities within the Cultus Lake area have included wildfire, timber harvest and salvage, limited road construction, campground and resort construction, and dispersed recreation. There is approximately 1.0 mile of shoreline and 24 acres within the Riparian Reserve affected by four (4) developed recreation sites in addition to Cultus Lake Resort. In addition, there are 5 designated dispersed sites that have impacted approximately 250 feet of shoreline, and 1 acre within the Riparian Reserve. Total shoreline affected by recreational use (developed and dispersed) is 1.0 mile (15 percent) of shoreline and 25 acres (10 percent) of Riparian Reserve. Overland flow of sediments into the lake occurs at some of the impacted areas. The impact this is having on water resources is unclear, but recent water quality monitoring indicates that the impact is likely not substantial. The proposed construction of an 18 to 30 car parking area at the resort, located within the Riparian Reserve, would not likely adversely impact the lake with sediment flow. The launch and parking sites are already at least partially developed and there would be no anticipated measurable adverse cumulative effects to the fisheries/water resources from implementation of this alternative.

The biological evaluation for redband trout determined that this alternative **May Impact** individuals or habitat, but will not likely contribute to a trend towards federal listing or loss of viability to the population or species.

Alternative 3: This alternative would remove approximately 20 additional trees and increase designated parking capacity within the Riparian Reserve over that in Alternative 2 (Proposed Action). Potential adverse effects to the water/fisheries resources could slightly increase with any potential increase in visitor use. Overall effects between Alternatives 2 (Proposed Action) and 3 would likely be not measurable.

The biological evaluation for redband trout determined that this alternative **May Impact** individuals or habitat, but will not likely contribute to a trend towards federal listing or loss of viability to the population or species.

Effects Common to Alternatives 1 (No Action), 2 (Proposed Action), and 3: There is no Essential Fish Habitat within the project area. No alternative would have an adverse effect on Essential Fish Habitat. Due to the distance of the nearest bull trout population, and water impoundments of the river at and upriver of Bend, no alternative would have an adverse effect on bull trout.

Analysis of Effects to the Aquatic Conservation Strategy (ACS) Objectives

The Aquatic Conservation Strategy Objectives are listed on page B-11 of the Record of Decision for the NWFP.

ACS Objective 1: *Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.* None of the alternatives retards or prevent attainment of this objective. The small size of the project site and the associated potential effects are minimal on a watershed scale. The Cultus Lake 6th field sub-watershed is 23,868 acres. The action alternatives would result in new development of less than 1/10 acre for either of the action alternatives (.0004% of sub-watershed). Landscape scale aquatic systems are maintained.

ACS Objective 2: *Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, upsweep areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.* None of the alternatives retards or prevents attainment of this objective. Connectivity within and between watersheds would not be affected under either alternative. The project area is already within a developed area. The

existing condition is providing network connections for fulfilling life history requirements.

ACS Objective 3: Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations. None of the alternatives retards or prevents attainment of this objective. There is no additional shoreline developed under the action alternatives. The shoreline under the existing condition has experienced some development, but the physical integrity is intact. The bottom of the lake will be disturbed during dredging at the boat ramp, but is limited to less than 1/4 acre within an 1,145 acre lake.

ACS Objective 4: Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities. None of the alternatives would retard or prevent attainment of this objective. Water quality would be degraded temporarily near the boat ramp during dredging and boat ramp construction activities, but mitigation measures would limit the impacts. Under existing conditions, water quality is very good.

ACS Objective 5: Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport. The two action alternatives would prevent some overland flow of sediments from the boat ramp area by paving this area. Under existing conditions, the elements of the sediment regime are maintained. The overland flow from the parking area is minimal.

ACS Objective 6: Maintain and restore in-stream flows sufficient to create and restore riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration and spatial distribution of peak, high, and low flows must be protected. None of the alternatives retards or prevents attainment of this objective. In-stream flows are not affected by any of the alternatives.

ACS Objective 7: Maintain and restore timing, variability, and duration of flood plain inundation and water table elevation in meadows and wetlands. None of the alternatives retards or prevents attainment of this objective. There would be no effects to floodplain inundation or wetland and meadow water tables under any of the alternatives.

ACS Objective 8: Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody debris sufficient to sustain physical complexity and stability. None of the alternatives retards or prevents attainment of this objective. There is no development of riparian areas under either action alternative. The species composition and structural diversity of plant communities are maintained. Under the existing condition, some riparian vegetation has been impacted from the construction of the boat ramp and foot traffic along the shoreline. The riparian vegetation zone is very narrow along the lake, often less than 10 feet wide. The species composition and structural diversity is maintained when put in context of the entire lake.

ACS Objective 9: Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species. None of the alternatives retards or prevents attainment of this objective. There will be no effect to the distribution within and between watersheds of native plants, invertebrates, and vertebrates. Some trees will be removed under the action alternatives, but is not anticipated to affect the distribution of these native plants. Under existing conditions, there is sufficient habitat to support native plants, invertebrates, and vertebrates.

Oregon Department of Environmental Quality (ODEQ) 303(d) Status

Cultus Lake and Cultus Creek that drains the lake are not listed by the Oregon Department of Environmental Quality as water quality impaired (303(d) list), in accordance with the 1972 Federal Clean Water Act.

Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands)

Neither action alternative has specific actions that adversely affect wetlands and floodplains, both short-term and long-term. Proposed activities in Alternatives 2 and 3 are compliant with the orders and USDA Departmental Regulation 9500-3.

Wildlife Resource

Affected Environment: The project area is: 1) within the 1.2 mi buffer established around an historic northern spotted owl nest site; 2) in a designated Critical Habitat Unit for the owl; 3) within a Riparian Reserve; 4) is in an established

recreation facility; and 5) currently in a disturbed condition. The area immediately surrounding the project area is vegetated primarily by late-successional mixed conifer. There are some remnant large ponderosa pine, Engelmann spruce, and Douglas fir in and around the parking areas, as well as some smaller lodgepole pine, ponderosa pine, and true fir. Although the proposed activities are located in sites that have been disturbed and are currently being utilized for parking and boat launching, the site is within a Critical Habitat Unit. Spotted owls were last seen using the nearby home range in 1988; subsequent nighttime hooting surveys in the 1990s and the early 2000s yielded no vocal response from owls.

Tables 2, 3, and 4, page 20, display wildlife/habitats that have been reviewed to determine if the project/activity would have any negative effects on them including Forest Plan Management Indicator Species (MIS), NWFP Survey and Manage (S&M) species, ecological indicator species, and special habitats (**Note 1**). The Wildlife report does not meet the requirements for evaluating the effects upon federally listed, proposed or candidate species. It also does not evaluate the effects upon Region 6 designated sensitive species.

Table 2: Forest Plan Management Indicator Species (MIS) and Habitats (Note 2)

Deer	Transition Range	Raptors*	x
	Summer Range	Woodpeckers	x
	Winter Range	Great Blue Heron	
	Fawning Habitat	Waterfowl	x
Elk	Transition Range	California Wolverine	
	Summer Range	American Marten	
	Winter Range	Western Big-Eared Bat	
	Calving Habitat	Logs/Down Wood spp.	
	Key Elk	Special Habitats	x

Table 3: Species of Concern (USFWS)

Northern Goshawk	Black Tern
Harlequin Duck	Olive -Sided Flycatcher
Tri-Colored Blackbird	Western Sage Grouse
Ferruginous Hawk	Pygmy Rabbit
Pacific Western Big-Eared Bat	Small-Footed Myotis
Long-Eared Myotis	Long-Legged Myotis
Yuma Myotis	Fringed Myotis
California Wolverine	Pacific Fisher
Preble's Shrew	Northern Sagebrush Lizard
Tailed Frog	Cascades Frog

Table 4: Northwest Forest Plan (Note 3)

S&M Mollusks	x	Great Gray Owl (S&M)	
Snags (matrix)		Coarse Woody Debris (matrix)	
Riparian Reserves	x	Late Successional Reserves	x
Green Tree Retention (matrix)		LOS Retention (matrix)	
Bats (matrix)		Woodpeckers (PB)	
Flammulated Owl		Canada Lynx	

Ecological Indicator Spp: Not Applicable

Management Indicator Species (MIS), Survey and Manage Species (S&M), Species of Concern

Alternative 1 (No Action), Alternative 2 (Proposed Action), and Alternative 3: The project area is currently not providing habitat for any MIS or S&M species. Although the project area is located within an LSR and a Riparian Reserve, it is already disturbed and is not currently meeting standards for either designation. The project would have a neutral effect on the condition of the Late Successional Reserve and the Riparian Reserve in the Cultus Lake Subwatershed. On a local scale, the project would benefit the riparian resource by reducing the current amount of runoff and erosion into Cultus Lake. It would benefit nearby vegetation by defining and restricting vehicle parking to already disturbed areas, and reduce the short-term tendency of visitors to park vehicles in currently undisturbed areas. No negative impacts were identified.

Northern Spotted Owl

Alternative 1 (No Action): There would be no change to the present nesting, roosting, and foraging (NRF) habitat of the northern spotted owl. The site would retain the stand structure that is presently available on approximately 0.6 acre.

Alternative 2 (Proposed Action) and Alternative 3: The project would be scheduled to take place after Labor Day, 2003, outside of the nesting season of spotted owls. Ambient noise associated with the project would not affect nesting spotted owls, should there be any in the area. The proposed projects are subject to the Project Design Criteria described in the 2001-2003 Deschutes National Forest Programmatic Biological Assessment. The following criterion was determined to be applicable to these projects: **Criterion Ib2: All vegetation manipulations within plant associations that are capable of sustaining NRF habitat need to promote the development of late-successional and old-growth conditions (USDA and USDI 1994a).** This criterion is NOT met. The project area is located in a plant association that is capable of sustaining NRF habitat. The removal of trees from the project areas does not promote the development of late-successional and old-growth conditions. The project is of very limited scope, and it is unlikely that actions related to this project would affect the development of NRF habitat within the LSR.

Although recreational use of Cultus Lake is growing, these projects are not expected to appreciably modify the use numbers in any significant way. The Cultus Demonstration Project and the Cultus Lake Resort Improvements Project could take place in the Cultus Mountain Late-Successional Reserve (LSR) in the reasonably foreseeable future. Cultus Demonstration would conduct thinning and other vegetation management activities at various locations throughout the LSR, and may impact spotted owl habitat. The Resort Improvement Project would add a new building with drainfield and a new parking lot within the resort boundary. This proposed project, addressed in the biological assessment (located in District File), is of very limited scope and would occur in an area that is already disturbed and receiving recreational use. It is unlikely that this project would exacerbate any effects that would happen as a result of the other proposed projects. Effects that downgrade or degrade existing spotted owl habitat would be minor, and the existing level of human disturbance in and around the project area would likely preclude any sustained use by spotted owls. The project design is not consistent with all Project Design Criteria for the northern spotted owl, and so the project **May Affect but is not likely to Adversely Affect** the northern spotted owl and its habitat.

Botany Resource

Affected Environment

Proposed, Endangered, Threatened, and Sensitive (PETS) Plants: A October 23, 2001 pre-field review revealed no potential habitat for any PETS plant species.

Noxious Weeds: Currently, there are no known sites of noxious weeds within the project area. **Table 5**, provides the listed noxious weeds of the Oregon Department of Agriculture that are documented or potential within the Deschutes National Forest. These are species designated by the Oregon State Weed Board as injurious to public health, agriculture, recreation, wildlife, or any public or private property.

Prevention Strategy: Prevention is always the preferred strategy to limit the introduction and spread of noxious weeds because it is most effective and least costly. Prevention and some more aggressive control methods are already in place outside the project area, alongside Highway 46 (the main highway to the Cultus Lake area). Prevention measures for noxious weeds for this project are listed under mitigation measures, page 13

Noxious Weeds Of Concern For The Project Area

Spotted knapweed, *Centaurea maculosa*, grows along most major highways in Central Oregon. It is very competitive on

disturbed dry to mesic sites because it is able to germinate in a wide range of conditions and grows in early Spring before many native plants. Seeds may be dispersed by animals, humans, and vehicles. Distribution over large areas is linked to transportation systems. There are known sites on Highway 46 that are currently being treated under the Deschutes National Forest Noxious Weed Control Environmental Assessment (1998).

Canada thistle, *Cirsium arvense*, is not of serious concern in forest communities because population levels decrease as the forest canopy overtops it. It can readily invade moist, open areas and meadows. Scattered new sites have been observed along Highway 46 between Elk Lake and Crane Prairie Reservoir. Some biological controls appear to have been successful in reducing the size of Canada thistle sites (personal observation).

Table 5: Deschutes National Forest Noxious Weed List

Scientific Name	Common Name	Presence (Note 4)
<i>Agropyron repens</i>	Quackgrass	Documented
<i>Cardaria (=Lepidium) draba</i>	Whitetop	Potential
<i>Carduus nutans</i>	Musk thistle	Potential
<i>Carduus pycnocephalus</i>	Italian thistle	Potential
<i>Centaurea diffusa</i>	Diffuse knapweed	Documented
<i>Centaurea maculosa</i>	Spotted knapweed	Documented
<i>Centaurea pratensis</i>	Meadow knapweed	Documented
<i>Centaurea repens</i>	Russian knapweed	Potential
<i>Centaurea solstitialis</i>	Yellow star-thistle	Potential
<i>Centaurea virgata</i> var. <i>squarrosa</i>	Squarrose knapweed	Potential
<i>Cirsium arvense</i>	Canada thistle	Documented
<i>Cirsium vulgare</i>	Bull thistle	Documented
<i>Conium maculatum</i>	Poison hemlock	Potential
<i>Cynoglossum officinale</i>	Common houndstongue	Documented
<i>Cytisus scoparius</i>	Scot's broom	Documented
<i>Dipsacus sylvestris</i>	Teasel	Potential
<i>Euphorbia esula</i>	Leafy spurge	Documented
<i>Hypericum perforatum</i>	St. Johnswort	Documented
<i>Isatis tinctoria</i>	Dyer's woad	Documented
<i>Kochia scoparia</i>	Kochia	Potential
<i>Linaria dalmatica</i>	Dalmation toadflax	Documented
<i>Linaria vulgaris</i>	Butter and Eggs	Documented
<i>Lythrum salicaria</i>	Purple loosestrife	Potential
<i>Onopordum acanthium</i>	Scotch thistle	Documented
<i>Phalaris arundinacea</i>	Reed canarygrass	Documented
<i>Ranunculus repens</i>	Creeping buttercup	Potential
<i>Salvia aethiopsis</i>	Mediterranean sage	Potential
<i>Senecio jacobaea</i>	Tansy ragwort	Documented
<i>Taeniatherum caput-medusae</i>	Medusahead	Potential

Survey and Manage

1. **Vascular Plants:** There is no habitat present within the project area for *Botrychium minganense* and *B. montanum*, the two grape-fern species that requires pre-disturbance surveys. There are no known sites present within the project

area for these species that would require management of those sites. A Fall 2001 prefield review determined a low probability for *Tetraphis geniculata*. A September 20, 2002 field review determined that no habitat for *Tetraphis geniculata* was present within the Cultus Resort Expanded Parking Project.

2. **Non-Vascular Plants:** There is no habitat present within the project area that requires pre-disturbance surveys for bryophytes *Schistostega pennata*, *Marsupella emarginata* var. *aquatica* and *Tritomaria exsectiformis*. There are no known sites present within the project area for these species that would require management of those sites.
3. **Lichens:** There is no habitat present within the project area for the one lichen, *Pseudocyphellaria rainierensis*, that requires pre-disturbance survey if habitat is present. There are no known sites present within the project area for this species that would require management of those sites.
4. **Fungi:** There is no habitat present within the project area for the one fungi species, *Bridgeoporous nobilissimus*, that requires pre-disturbance survey. Additionally, there are no known sites present within the project area for this species or the five other species (*Bondarzewia mesenterica*, *Otidea leporina*, *Otidea smithii*, *Polyozellus multiplex*, *Sowerbyella rhenana*) that would require management of those sites.

Alternative 1 (No Action):

There are no expected direct, indirect, or cumulative effects to PETS in this alternative, because there are no Survey and Manage sites located within this area. A low risk ranking was given for Noxious Weeds because there is risk that weed parts and seed will accidentally be introduced into the area by human activity. There are no expected direct, indirect, or cumulative effects to Survey and Manage species in this alternative, because there are no Survey and Manage sites located within this area.

Alternative 2 (Proposed Action) and Alternative 3:

Implementation of either action alternative would have no direct, indirect, or cumulative effects upon any PETS plants because no PETS plant habitat was located within the project area. A moderate risk ranking was given for Noxious Weeds because, although there are no known noxious weeds within the project area and mitigation measures would be implemented, the project involves extensive ground disturbance and the use of gravel imported from outside the area and the potential exists that noxious weeds could be introduced during project activities. There are no expected direct, indirect, or cumulative effects from the implementation of this alternative to Survey and Manage species because there were no sites located within the proposed project area. A Fall 2001 prefield review determined a low probability for *Tetraphis geniculata*, a Survey and Manage moss species.

Cultural Resource

Affected Environment: Several previous projects adjacent to the current project area located no historic properties, including historic and prehistoric sites, in the vicinity of the boat ramp and parking area. Surveys for this project located no historic properties or potential historic properties.

Alternative 1 (No Action), Alternative 2 (Proposed Action), and Alternative 3: No adverse or beneficial effects to Cultural Resources are expected from any of the alternatives.

Scenic Resource

Affected Environment: The project area is located within the Foreground viewing distance zone. The existing scenic integrity provides a variety of disturbed and undisturbed areas. Past human activities (recreation development) have intruded into the "natural appearing" landscape character within the Cultus Lake area. Current recreation use is high at Cultus Lake. Existing developed recreation facilities are well established with strong historical, cultural, and recreational values and usage. In general, most of these facilities blend into and are subordinate to the natural environment although the impact on landscape character will always be evidenced. Although recreational use of Cultus Lake is growing, the proposed projects would not be expected to substantially modify recreational use numbers. The impact on landscape character and scenery would also directly correlate with the level of proposed development.

Trees within the proposed north parking project area that are proposed to be removed range from approximately 8 inches to 24 inches dbh. The effect on scenic resources, specifically on landscape character and scenic integrity, can be classified into two categories, short-term (0-5 years) and long-term (5 years and beyond). Effects from the proposed management activities would be most evident to the visiting public within the immediate Foreground landscape (0-300').

Alternative 1 (No Action): There would be no change to the existing landscape character or scenic quality level. Routine and basic site maintenance would continue as required to meet basic health and safety standards and guidelines.

Elements Common to Alternatives 2 (Proposed Action) and 3: The proposed activities are within the Intensive Recreation (Note 5) management allocation that is within the Roaded Natural (Note 6) classification. The Roaded Natural

(Recreation Opportunity Spectrum (ROS) classification) and Intensive Recreation experience are consistent with the Forest Plan and the setting would be expected to remain unchanged or slightly improved upon with the completion of this project. The overall effect on scenic view, landscape character, and recreation experience is expected to be minimal during reconstruction activities. Upon completion of this reconstruction project, including site rehabilitation of any impacted area during construction, the overall scenic quality and recreation experience would be expected to be maintained or benefit from the proposed activities. With effective mitigation measures (Scenic Resource mitigation measures 9 through 12, [above](#)), the effect(s) on scenic view and landscape character would be expected to fully meet the Forest Plan and ROS classification for project area.

Alternative 2 (Proposed Action): The effect on scenic resources would be expected to be minimal from the proposed reconstruction/improvement of the existing boat ramp and associated parking areas. The removal of some existing vegetation from this site is unavoidable in order to meet the project goal and objective, as well as design criteria.

Alternative 3: The effect on scenic resources would be similar to Alternative 2. The removal of vegetation, in addition to the vegetation proposed for removal under Alternative 2, to improve vehicular circulation and parking efficiency could slightly increase alterations to the existing landscape character and scenic integrity level.

Public Health and Safety

Proposed activities in Alternatives 2 and 3 would improve public health and safety by: 1) the reduction of the risk of auto/human collision; 2) the reduction of the risk of human conflict; 3) the reduction of the risk from reduced line-of-sight from vegetation; and 4) the reconstruction and reconfiguration of a concrete boat ramp which would reduce hazardous conditions capable of disabling vehicles, trailers, and/or injuring the public.

No significant adverse effects to public health or safety have been identified. The effects of implementation of the alternatives are well known, not highly controversial, and do not involve any unique or unknown risks. Effects meet or exceed state water quality standards.

Public/Commercial Firewood Gathering

The proposed activities would not generate wood products that would provide firewood for the public. Trees that would be removed during project activities would be used for fish and/or wildlife habitat enhancement activities.

Prime Lands

There are no lands within the planning area that are classified as prime farm or rangelands. Proposed activities in Alternatives 2 and 3 would not change areas classified as prime forestland. There would be no direct, indirect, or cumulative adverse effect to these resources and thus are in compliance with the Farmland Protection Act and Departmental Regulation 9500-3, "Land Use Policy".

Civil Rights and Environmental Justice

Civil Rights legislation and Executive Order 12898 (Environmental Justice) direct an analysis of the proposed alternatives as they relate to specific subsets of the American population. The subsets of the general population include ethnic minorities, disabled people, and low-income groups. The purpose of the analysis is to determine whether adverse civil rights impacts are anticipated on an underrepresented population. The analysis is to determine also whether disparate or disproportionate impacts associated with the alternatives are anticipated. A primary purpose of the alternatives is to provide for the health and safety of all members of the public by reducing the risk of endangerment from vehicles. Provision of these benefits does not discriminate between subsets of the general population.

Compliance With State and Local Laws

Implementation of Alternative 1 (No Action), Alternative 2 (Proposed Action), or Alternative 3 would be consistent with relevant Federal, State and local laws, regulations, and requirements designed for the protection of the environment including the Clean Air and Clean Water Act. None of the alternatives establishes a precedent for future actions or a decision in principle about a future consideration.

Other Effects and Findings

Turbidity from dredging activities would have short-term negative effects to fisheries and water quality. The proposed management activities would not provide long-term adverse effects to wetlands, fisheries, water quality and designated floodplains (Appendix B of project files).

Currently, 24 percent (39,840 acres) of the Cascades Lake Watershed provides suitable nesting, foraging, and roosting habitat for the northern spotted owl. The Cultus Mountain Late-Successional Reserve is approximately 18,000 acres. Approximately 60 percent (10,820 acres) of the 18,000 acres has canopy cover of 71 percent or greater, including the area of the proposed activities. Of the 18,000 acres, approximately 9,950 acres is designated as Late and Old Growth. This project would remove trees from approximately one-half (0.5) to three-quarters (0.75) of an acre. This is substantially less than one-half of one percent (0.05) of the Late and Old Growth acreage within the Late-Successional Reserve, continuing to meet or exceed 15 percent of the area that is defined as Late and Old Growth.

No designated roadless areas, old growth stands, prime farmland, Wild and Scenic Rivers or parkland would be adversely affected by the proposed activities. No significant irreversible or irretrievable commitment of resources would occur under Alternatives 2 (Proposed Action) or 3. There would be some negligible irretrievable losses of fugitive dust caused by mechanical operations.

Proposed vegetation management activities are consistent with the Record of Decision for the Final Environmental Impact Statement for Managing Competing and Unwanted Vegetation and the subsequent Mediated Agreement of 1989 (Refer to Appendix D of the project files at the Bend-Fort Rock Ranger District office for further information and a discussion of other National Forest Management Act findings).

The alternatives are consistent with the goals, objectives and direction contained in the Deschutes National forest Land and Resource Management Plan and accompanying Final Environmental Impact Statement and Record of Decision dated August 27, 1990, the Northwest Forest Plan, 1994, the Cascade Lakes Watershed Analysis, 1995, the Inland Native Fish Strategy, 1995, and the Cultus Mountain/Sheridan Mountain Late-Successional Reserve Assessment, 1996.

REASONABLY FORESEEABLE ACTIONS ADJACENT TO THE PROJECT AREA

Cultus Lake Resort Improvements EA - This EA would: 1) develop a shower/laundry facility with an associated parking facility for approximately six (6) vehicles and 2) develop a designated extended-use parking area for approximately 15-25 vehicles. The proposed activities would be located in areas that have had continuous disturbance and used for other activities for several years. The shower/laundry facility would be located outside of the Riparian Reserve. The parking area would be located within the riparian reserve. Both activities would be located in a Late Successional Reserve, Roaded Natural area, and Intensive Recreation Management Areas. The site-specific analysis has not been completed and an alternative decision has not been made.

Cultus Demo EA - This EA would conduct commercial thinning on approximately 550 acres within Late Successional Reserves. The Forest Service Improvement EA would not substantially have a cumulative effect to Late Successional Reserve habitat.

LIST OF PLANNING PARTICIPANTS

This section identifies the Forest Service interdisciplinary team personnel who participated in the analysis and the preparation of the EA. For a list of organizations and individuals contacted during the scoping process, refer to the project file located at the Bend-Ft. Rock Ranger District.

David Frantz	- Interdisciplinary Team Leader and Writer/Editor
Gini Stoddard	- Geographical Information Systems Specialist
Marcy Boehme	- Wildlife Biologist
Charmane Levack	- Botanist
Pat Joslin	- Botanist
Vicki Ramming	- Recreational Planner
Ronnie Yimsut	- Landscape Architect
Don Zettel	- Archeologist
Marcos Romero	- Engineer
Lisa Anheluk	- Facilities Civil Engineer

Tom Walker

- Fish Biologist

NOTES

1. Special habitats include: caves, old-growth forest, riparian, wetlands, and snags.
2. *: Northern spotted owl, peregrine falcon and bald eagle are addressed by the BE. Includes golden eagle, northern goshawk, redtail hawk, Cooper's hawk, sharp-shinned hawk, great gray owl (also a S&M spp.), and osprey; X: potentially affected by the project/activity.
3. PB: Protection buffer species (NWFP).
4. Documented: there is at least one known site on the Deschutes National Forest; Potential: species is not recorded on the Forest, but the potential for infestation exists (e.g., weed occurs within the range of seed transport or events or practices are occurring which makes the transport likely).
5. Intensive Recreation: provide a wide variety of quality outdoor recreation opportunities within a Forest environment where the localized settings may be modified to accommodate large numbers of visitors.
6. Roaded Natural: predominately natural appearing environment with moderate evidence of sights and sounds of humans.

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